

A REVISION OF MASSY'S CHECKLISTS OF 'SOUTH AFRICAN'
CEPHALOPODA

By

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INTRODUCTION

The works of A. L. Massy and G. C. Robson are important milestones in the knowledge of southern African cephalopods. Robson published four papers in 1924 on the Cephalopoda collected by Dr J. D. F. Gilchrist when conducting the South African Marine Survey from the S.S. *Pickle*, and a short additional paper in April 1925. In January 1925, apparently without seeing Robson's papers of 1924 (possibly due to a delay in publication), Massy published her first paper on cephalopods of this region and included a checklist of South African Cephalopoda (pages 204–206), but unfortunately followed Hoyle's (1886) definition of this area. Hoyle's 'South African Region' (1886: 217 and map) extends from about Hollam's Bird Island on the west coast of southern Africa to the Red Sea, and includes Madagascar, Mauritius, the Tristan and Prince Edward Island groups, and the Kerguelen and Heard Islands. Massy's checklist covers this same region, but the more modern conception of the southern African region includes the area south of 20°S (Day 1967: vii). For pelagic and oceanic species the area has arbitrarily been restricted here to 20° to 45°S and 10° to 40°E. This excludes all the island groups and much of the east African coast.

It was considered that a separation into regions of the cephalopods listed by Massy (1925) will be of some use in compiling future checklists and distribution maps. Since future authors will wish to check on the localities of the species listed, and on the validity of the separation, before quoting their distributions, all relevant published records are given, as far as they could be traced. These are presumably the records upon which Massy based her checklist, although this cannot be verified, as she gave no details. Where possible, original references were checked for exact localities, but in a few cases the original references were not available; for references quoted at second hand, the source is given in brackets. Within the zoogeographic regions, the species are presented in the order and with the names and comments given by Massy (in boldface type), including her sometimes inconsistent abbreviations of authors' names and linking of dual authors by '&', 'e.' and 'et'. The year of publication of the species and, where necessary, synonyms, have been added (in lightface type).

The species listed by Massy have been divided into two major groups: species that occur in the southern African region (modern concept—20° to 45°S and 10° to 40°E) and those that occur outside this region. The non-southern African species have been allocated to four zoogeographical regions: southeast

Atlantic, Southern Ocean (south of 45°S), central Indian Ocean and northwest Indian Ocean.

A third group of species, those recorded from the southern African region up to 1925 but not listed by Massy, is also included, so that a complete list of cephalopod species known from the southern African region up to 1925 is now available.

Finally, the taxonomic papers published by Robson (1926) and Massy (1927, 1928), and ending with Massy's list of additions to her checklist (1928: 89-90), are discussed. No attempt has been made to bring the checklist up to date beyond 1928, as new records still come to hand with sufficient frequency to show that the cephalopod fauna of this region is as yet incompletely known. Recent checklists have been published by Voss (1962, 1967) and Barnard (1974).

SOUTHERN AFRICAN SPECIES LISTED BY MASSY (1925)

Gonatus fabricii (Lichtenstein, 1818)

Gonatus sp. Steenstrup, 1882: 149 (translation) — one specimen ex *Diomedea exulans*, a different form to the arctic species of *Gonatus*, and fragments, probably of the same species, from 40°S, 15°E.

According to Clarke (1966: 152), *G. fabricii* is 'a widely distributed species from the colder regions of the north Atlantic and north Pacific . . .' and 'is quite distinct from all other species except *G. antarcticus* which is often considered a southern variety of *G. fabricii*.' According to Voss (personal communication) *G. fabricii* is most likely a complex of species, and there appears to be more than one species in the Atlantic; until distinctions have been made, *G. fabricii* must serve as a catch-all category.

(?) *Teleoteuthis caribæa* (Lesueur, 1821) [= *Onykia carriboea* Lesueur, 1821]

Teleoteuthis caribæa: Pfeffer, 1912: 49 — one specimen from 28°40'S, 10°45'E, one from 35°45'S, 22°06'E and one from the Cape of Good Hope. Thiele, 1920: 444 — one juvenile from 28°46'S, 10°17'E.

According to Voss (personal communication), the genus *Onykia* is in a somewhat similar situation to that of *Gonatus*, i.e. that *O. carriboea* is a complex of species.

Onychoteuthis banksi (Leach, 1817)

Onychoteuthis banksii: Pfeffer, 1912: 70 — three specimens from the Cape of Good Hope. Odhner, 1923: 7 — one specimen washed on board off Table Bay.

Lycoteuthis diadema (Chun, 1900)

Thaumatolampas diadema: Chun, 1910: 59 — 1♀ in vertical net to 3 000 m from *Valdivia* Sta. 89, southern part of Benguela Current, 31°21'S, 15°01'E; 1♀ in vertical net to 1 500 m from *Valdivia* Sta. 118, west wind drift, 40°31'S, 15°06'E.

? *Lycoteuthis* sp. A Robson, 1924b: 2 — 1♀ in 324 fm (595 m) from Pickle Sta. 156, 30°00'S, 31°22'E.

***Asthenoteuthion planctonicum* Pfeffer, 1912** [= *Lycoteuthis diadema* (Chun, 1900)]

'Enoploteuthid larvae' Chun, 1910: 106 — two larvae from *Valdivia* Sta. 91, southern part of Benguela Current (no latitude or longitude could be traced for this station); four larvae from *Valdivia* Sta. 102, Agulhas Bank, 34°31'S, 26°00'E. Pfeffer (1912: 770) thought that these larvae pertained to *A. planctonicum*.

***Pterygioteuthis giardi* Fischer, 1896**

Pterygioteuthis Giardi: Chun, 1910: 131 — one larva from *Valdivia* Sta. 117, southern region of Agulhas Current (the position of this station could not be traced).

***Octopodoteuthis* larvae (Chun, 1910)** [= *Octopoteuthis* sp.]

Octopodoteuthis larvae Chun, 1910: 144 — two larvae in vertical net to 1 800 m from *Valdivia* Sta. 102, Agulhas Current, 34°31'S, 26°00'E.

***Benthoteuthis megalops* Verrill, 1885** [= *Bathyteuthis abyssicola* Hoyle, 1885]

Benthoteuthis megalops: Chun, 1910: 185 — one specimen in vertical net to 2 500 m from *Valdivia* Sta. 115, origin of Benguela Current, 36°23'S, 17°38'E. Thiele, 1920: 453 — one specimen in vertical net to 2 500 m from north of Prince Edward Island, 43°04'S, 36°22'E.

***Brachioteuthis riisei* (Steenstrup, 1882)**

Tracheloteuthis Riisei: Hoyle, 1905: 93 — one specimen from 34°40'S, 27°E.

***Stenoteuthis bartrami* (Lesueur, 1821)** [= *Ommastrephes bartrami* Lesueur, 1821]

Ommastrephes Bartramii: Gray, 1849: 62 — four specimens from Cape of Good Hope.

? *Stenoteuthis Bartrami*: Pfeffer, 1912: 465 — one specimen from 'Cap'.

Stenoteuthis bartrami: Thiele, 1920: 455 — one juvenile from 28°30'S, 38°13'E. Massy, 1925: 206 — one specimen, washed up on shore after a storm, Durban.

According to Tomlin (1923: 40) Orbigny recorded this species as taken by Dussumier at the Cape.

***Symplectoteuthis oualaniensis* (Lesson, 1830)**

Ommastrephes oualaniensis: Gray, 1849: 63 — one specimen from ? Cape of Good Hope.

Loligo oualaniensis: Tryon, 1879: p.? — specimens from Cape of Good Hope (according to Gibbons 1888: 202; Smith 1903: 355; Voss 1962: 246)

***Liocranchia reinhardti* (Steenstrup, 1856)**

Liocranchia reinhardti a Robson, 1924b: 6 — 2♀, 1♂ in 220 fm (404 m) from Pickle Sta. 100, 30°00'S, 31°19'E.

The only previous record that could be found, possibly for this region, is given by Pfeffer (1912: 673) as 'Südatl. Ozean (Putze vend., Mus. Göttingen)'.

***Pyrgopsis zygæna* (Vér.) [Vérany, 1851]**

? *Pyrgopsis rhynchophorus* Rochebrune, 1884: 23 — specimen(s) from Agulhas Bank (according to Clarke 1966: 223).

? *Pyrgopsis pacifica*: Robson, 1924b: 5 — 1♀ in 180 fm (330 m) (not 100 fm as stated by Robson) from Pickle Sta. 258, 29°52'S, 31°15'E.

The systematics of the genus *Pyrgopsis* are confused; six species have been named (*P. zygaena* (Vérany, 1851); *P. schneehageni* (Pfeffer, 1884); *P. rhynchophorus* Rochebrune, 1884; *P. pacifica* (Issel, 1908); *P. lemur Berry*, 1920 and *P. atlantica* Degner, 1925), which have been synonymized in various combinations by different authors. Pfeffer (1900: 193) synonymized *P. rhynchophorus* Rochebrune, 1884, *Loligopsis schneehageni* [sic] Pfeffer, 1884 (= *Pyrgopsis schneehageni* (Pfeffer, 1884)) and *Taonius richardi* Joubin, 1895 (= *Galiteuthis armata* Joubin, 1898, according to Clarke (1966: 238)) with *Zygaenopsis zygaena* (Vérany, 1851), and lists one of the localities as 'Südspitze Afrikas' (? Rochebrune's record).

Chun (1910: 354) synonymized all the species referable to *Pyrgopsis* with *Euzygaena* (= *Pyrgopsis*) *pacifica* (Issel, 1908). Pfeffer (1912: 656-664) kept all the species separate, but thought that *P. zygaena* (Vérany, 1851) is probably synonymous with *P. rhynchophorus* Rochebrune, 1884. Clarke (1966: 221-223) synonymized *P. zygaena* (Vérany, 1851) with *P. pacifica* (Issel, 1908), but retained the others as separate species.

Recent authors (Clarke 1966: 221; Young 1972: 82; Voss, personal communication) believe that at least some of the *Pyrgopsis* species are probably larval forms of *Leachia* and other closely related cranchiid genera. Young (1972: 80) has shown that this is true for at least one species, *Leachia dislocata* Young, 1972.

Hoyle (1886: 217) listed *P. rhynchophorus* Rochebrune, 1884 under the 'South African' region, but not *P. zygaena* (Vérany, 1851). Massy (1925: 204) listed only the latter, presumably because she considered these two species to be synonymous. In fact, prior to Robson's (1924b) records of *P. pacifica* (which Massy did not apparently see before compiling her list), Rochebrune's record from the Agulhas Bank is the only southern African record of *Pyrgopsis*.

***Leachia cyclura* Lesueur, 1821**

Leachia cyclura Lesueur, 1821: 90 — one specimen from ? 'Pacific Ocean, 37°S, 33°E'.

Loligopsis cyclura Orbigny, 1848: 322 — specimen(s) from Cape Agulhas.

***Megalocranchia maxima* Pfeffer, 1884**

Megalocranchia maxima Pfeffer, 1884: 24 — one specimen from Cape of Good Hope. This same specimen was described as *Desmoteuthis maxima* (Pfeffer 1900: 192) and again as *Megalocranchia maxima* (Pfeffer 1912: 712). Hoyle (1886: 217) listed this species as *Taonius* (?) *maximus*.

***Loligo reynaudi* d'Orb. [Orbigny, 1845] [? = *Loligo vulgaris* Lamarck, 1798]**

Loligo reynaudii: Orbigny, 1848: 315 — specimen(s) from Cape of Good Hope. Gray, 1849: 73 — one specimen from Cape of Good Hope. Hoyle, 1910: 263 — 3♂ from Angra Pequena (= Lüderitzbucht). Hoyle, 1912: 280 — 13♀, 1?♀, 13♂ and 1 damaged in 35 fm (64 m) from *Scotia* Sta. 480, 8 miles (13 km) N of Dassen Island. Thiele, 1920: 440 — one specimen from *Valdivia* Sta. 101, Algoa Bay, 33°51'S, 25°29'E. Massy, 1925: 207 — 1♂, 1♀ in 35–40 fm (64–73 m) from Cape Henderson and 1♀ from Durban.

***Loligo indica* Pfeffer, 1884 [= *Loligo duvaucelii* Orbigny, 1835]**

Loligo indica: Robson, 1924d: 654 — 1♀ in 36 fm (66 m) from *Pickle* Sta. 167, Natal coast, 29°31'S, 31°24'E. Massy, 1925: 208 — 2♂, 3♀ from Durban; 1♂ from Natal coast.

***Sepioteuthis loliginiformis* (Ruppell & Leuckart, 1828)**

Sepioteuthis loliginiformis: Martens, 1879: 727 — specimen(s) from Inhambane.

***Sepioteuthis mauritiana* Quoy e. Gaimard, 1832 [= *Sepioteuthis lessoniana* Lesson, 1830]**

Sepioteuthis lessoniana Férussac et d'Orbigny (= *S. mauritiana* Quoy et Gaimard): Joubin, 1898: 26 — specimen(s) from the Cape.

Massy presumably had not seen Joubin's paper, since she listed *S. mauritiana* (? on the basis of Quoy & Gaimard's record from Mauritius) but not *S. lessoniana*, whilst Joubin had already synonymized the two species, of which *S. lessoniana* has priority.

***Sepioteuthis major* Gray, 1828 (Insufficiently characterized) [? = *Thysanoteuthis rhombus* (Troschel, 1857)]**

Sepioteuthis major Gray, 1828: 3 — specimen(s) from Cape of Good Hope (according to Gray 1849: 83).

***Sepia vermiculata* Quoy e. Gaimard, 1832 = *hierredda* Rang, 1837 [= *Sepia officinalis vermiculata* Quoy & Gaimard, 1832, non = *Sepia officinalis hierredda* Rang, 1837]**

Sepia vermiculata Quoy & Gaimard, 1832: 64 — specimen(s) from Cape of Good Hope (according to Gibbons 1888: 202; Bartsch 1915: 250; Smith 1903: 356, 1916: 20). Robson, 1924b: 12 — 1♂ in 38 fm (70 m)

from *Pickle* Sta. 386, 29°25'S, 31°37'E; and 1♂ from Natal coast. These same specimens were later (Robson 1924d: 639) described as *Acanthosepion vermiculata*. Massy, 1925: 209 — 1♀ in 40 fm (73 m) from Cape Henderson; 1♂ from Natal coast; 1♀ from Congella, Durban; 1♂ from Durban; 1♀ in 135 fm (248 m) from Natal coast.

Sepia hierredda (non Rang): Orbigny, 1841: 268 — specimen(s) from Cape of Good Hope. Smith, 1916: 20 — mentions specimens in the British Museum from Port Elizabeth, Cape Colony, and Tongaat Beach, Natal. In the previous paragraph, however, he states his belief that *S. hierredda* is synonymous with *S. vermiculata*, as suggested by Orbigny.

Sepia jousseaumi Rochebrune, 1884: 117 — specimen(s) from Cape of Good Hope (according to Smith 1903: 356, 1916: 22; Bartsch 1915: 250; Adam 1941: 108).

Sepia Filliouxii: Joubin, 1898: 24 — 1♂ from the Cape.

***Sepia zanzibarica* Pfeffer, 1884**

Sepia zanzibarica: Smith, 1916: 21 — one shell from Tongaat, Natal. Tomlin, 1923: 40 — specimen(s) from Isipingo.

***Sepia acuminata* E. A. Smith, 1916 (shell only known)**

Sepia acuminata Smith, 1916: 21 — shells from Port Elizabeth and Tongaat Beach, Natal. One shell from Tongaat, mentioned by Smith as being different from the others, is *S. hieronis* (Robson, 1924). Robson, 1924b: 12 — 2♀ in 192 fm (352 m) (not 95 fm as stated by Robson) from *Pickle* Sta. 95, 29°52'S, 31°17'E.

Rhombosepion acuminata Robson, 1924d: 643 — 2♀ from *Pickle* Sta. 95 (as above) and 2♂ in 160 fm (294 m) from *Pickle* Sta. 103, 29°54'S, 31°15'E.

***Sepia papillata* Quoy e. Gaimard, 1832**

Sepia papillata Quoy & Gaimard, 1832: 61 — specimen(s) from Cape of Good Hope (according to Krauss 1848: 133; Smith 1916: 22). Massy, 1925: 211 — 1♂ from 16 miles (26 km) NE of Bird Island.

Sepia tuberculata (non Lamarck): Orbigny, 1848: pl. 17, figs 13–15 — ? specimen(s) from Cape of Good Hope. Steenstrup, 1875: 479 — 1♂, 1♀, from the Cape. Hoyle, 1910: 265 — 3♀ from Angra Pequena (Lüderitz-bucht).

Spathidosepion tuberculatum Rochebrune, 1884: 94 — 1♂ without shell from Cape of Good Hope (according to Adam 1944: 226).

***Sepia natalensis* sp. nov. [= *Sepia simoniana* Thiele, 1920]**

Sepia tuberculata (non Lamarck): Gray, 1849: 101 — one shell from Cape of Good Hope.

Sepia papillata (non Quoy & Gaimard): Smith, 1916: 22 — shells from Port Elizabeth and Tongaat Beach, Natal.

Sepia simoniana Thiele, 1920: 436 — 3♂, 2♀ from Simons Bay; one shell

from Olifant River mouth. Odhner, 1923: 7 — one specimen in 40 fm (73 m) from 10 miles (16 km) from Cape Barracouta.

Sepia natalensis Massy, 1925: 212 — 1♀ in 35–40 fm (64–73 m) from Cape Henderson; 2♀ from 16 miles (26 km) NE of Bird Island; 1♀ from Durban.

***Sepia insignis* E. A. Smith, 1916 (shell only known)**

Sepia insignis Smith, 1916: 25 — two shells from Tongaat Beach, Natal.

***Sepia (Doratosepion) australis* Quoy e Gaimard, 1832**

Sepia australis Quoy & Gaimard, 1832: 70 — specimen(s) from Agulhas Bank to 90 miles (145 km) from Cape Agulhas (according to Krauss 1848: 133; Smith 1916: 24). Hoyle, 1912: 281 — 1♀ in 35 fm (64 m) from 8 miles (13 km) N of Dassen Island. Smith, 1916: 24 — shell(s) from Port Elizabeth. Robson, 1924b: 11 — 1♀, 1?♂ in 117 fm (215 m) from *Pickle* Sta. 2, 33°03'S, 17°42'E; 6♂, 6♀ in 112 fm (206 m) from *Pickle* Sta. 7, 32°32'S, 17°42'E; 2♂, 8♀ in 100 fm (184 m) from *Pickle* Sta. 9, 32°37'S, 17°41'E; 3♂ in 68 fm (125 m) (not 67 fm as stated by Robson) from *Pickle* Sta. 20, 32°20'S, 17°55'E; 1♂, 2♀ in 85 fm (156 m) from *Pickle* Sta. 44, 33°20'S, 17°49'E; 2♀ in 121 fm (222 m) from *Pickle* Sta. 54, 33°09'S, 17°36'E. These specimens were later described as *Rhombosepion capense* (Robson 1924d: 641).

Sepia capensis: Orbigny, 1848: 278 — specimen(s) from Agulhas Bank. Krauss, 1848: 133 — one specimen from Kalk Bay. Thiele, 1920: 438 — one specimen from *Valdivia* Sta. 114, Simons Bay, 34°20'S, 18°36'E; one specimen from *Valdivia* Sta. 101, Algoa Bay, 33°51'S, 25°29'E; five specimens from *Valdivia* Sta. 105, Agulhas Bank, 35°29'S, 21°03'E; one specimen from *Valdivia* Sta. 106, Agulhas Bank, 35°27'S, 20°56'E.

Sepia (Doratosepion) australis Massy, 1925: 214 — 1♂ from 16 miles (26 km) NE of Bird Island.

Hoyle (1886: 217) listed this species for South Africa as *Sepia capensis*.

***Sepia (Doratosepion) burnupi* Hoyle, 1904**

Sepia burnupi Hoyle, 1904: 27 (*partim*) — two shells from Umkomaas, Natal. Smith, 1916: 23 — shells from Tongaat Beach, Natal.

***Sepia (Doratosepion) incerta* E. A. Smith, 1916**

Sepia burnupi Hoyle, 1904: 27 (*partim*) — two shells from Port Elizabeth.

Sepia incerta Smith, 1916: 23 — shells from Tongaat Beach, Natal.

Sepia (Doratosepion) burnupi (non Hoyle) Massy, 1925: 215 — 1♂ in 38 fm (70 m) from Cape Henderson; 1♂ from Natal coast.

Sepia (Doratosepion) incerta Massy, 1925: 219 — 2♀ from Cape Henderson.

***Sepia (Doratosepion) confusa* E. A. Smith, 1916**

Sepia burnupi Hoyle, 1904: 27 (*partim*) — one shell from Port Elizabeth.

Sepia confusa Smith, 1916: 24 — shell(s) from Tongaat Beach, Natal.

Robson, 1924*b*: 12 — 2♀ in 158 fm (290 m) from *Pickle* Sta. 102, 29°51'S, 31°16'E; 1♀ in 36 fm (66 m) from *Pickle* Sta. 167, 29°31'S, 31°24'E; 2♂ in 192 fm (352 m) from *Pickle* Sta. 95, 29°52'S, 31°17'E; 1♂ in 180 fm (330 m) from *Pickle* Sta. 107, 29°49'S, 31°18'E. These specimens were later described as *Doratosepiion confusum* (Robson 1924*d*: 647).

Sepia (*Doratosepiion*) *confusa* Massy, 1925: 221 — 1♂ from Natal coast. Anatomy of the 'tail' of the male specimens described by Robson (1924) and Massy (1925) was described (as *Doratosepiion confusa*) by Massy & Robson (1923: 435) and Carleton & Robson (1924: 259).

***Hemisepius typicus* Steenstrup, 1875** [= *Sepia* (*Hemisepius*) *typica* (Steenstrup, 1875)]

Hemisepius typicus Steenstrup, 1875: 468 — 1♀ from Table Bay. Hoyle, 1912: 281 — 2♀ in 8–10 fm (15–18 m) from Saldanha Bay. Chun, 1915: 411 — 1♂, 1♀ from *Valdivia* Sta. 100, St Francis Bay, 34°09'S, 24°59'E.

***Velodona togata* Chun, 1915**

Velodona togata var. *a* Robson, 1924*a*: 206 — 2♂ in 220 fm (404 m) from *Pickle* Sta. 99, 29°55'S, 31°21'E; 1♀ in 250 fm (459 m) from *Pickle* Sta. 396, 29°55'S, 31°22'E; 1♀ in 240 fm (440 m) from *Pickle* Sta. 162, 30°03'S, 31°12'E. These specimens were later described as *Velodona togata* var. *capensis* (Robson 1924*d*: 644).

Strictly speaking this species should be listed with the non-southern African species, as Massy had not seen Robson's papers when she compiled the checklist, and the only previous record of *V. togata* was from the East African coast (Chun 1915: 479); but it is felt that this would only add to the confusion already caused by the checklist itself.

***Polypus granulatus* (Lam.) [Lamarck, 1798]** [= *Octopus vulgaris* Cuvier, 1797]

Octopus granulatus: Hoyle, 1886: 80 — one young specimen in 10–20 fm (18–37 m) from Simons Bay, Cape of Good Hope.

Polypus granulatus: Thiele, 1915: 487 — 1♀ from Cape Town. Thiele, 1920: 436 — 1 juvenile from Simonstown. Massy, 1925: 222 — 1♀ from Park Rynie; 1♀ from Indian Ocean; 1♀ from Tongaat Beach, Natal; one mutilated specimen from H. Reich's coll.; 1♂ from 16 miles (26 km) NE of Bird Island; 1♀, 1♂ from Scottburgh, Natal; 1♂ from Durban.

Polypus rugosus: Robson, 1924*d*: 669 — 2♀ in 38 fm (70 m) from *Pickle* Sta. 388, Natal coast, 29°27'S, 31°37'E; 1♂ in 40 fm (73 m) from *Pickle* Sta. 389, Natal coast, 29°27'S, 31°39'E.

Robson (1929: 63) and Pickford (1955: 152) have placed *Octopus granulatus* Lamarck, 1798 in synonymy with *Octopus rugosus* (Bosc, 1792). Massy (1925: 222) was of the same opinion, as she listed *Polypus rugosus* (Orbigny, 1835) as a synonym of *Polypus granulatus* (Lamarck, 1798). She did not, however, recognize Bosc's inadequate description of *Sepia rugosa* (1792) as valid, and so upheld *Octopus granulatus* Lamarck as having priority, but at

the same time giving priority to *Polypus* over *Octopus*. The priorities of these generic names are discussed by Robson (1929: 56), and Pickford (1955: 151) has discussed the complexities of the synonymies of *Octopus vulgaris*, *O. rugosus* and *O. granulatus*. On re-examining Robson's specimens Pickford (1955: 158) found that 'The majority of specimens from the eastern, western, central and south Atlantic, and from West and South Africa which Robson referred to this species (i.e. *O. rugosus*) are probably correctly assigned to *O. vulgaris*. It cannot be established that *O. rugosus* is a valid species.'

***Polypus horridus* (d'Orb.)** [Orbigny, 1826] [= *Octopus horridus* Orbigny, 1826]

Octopus argus Krauss, 1848: 132 — one specimen from Natal.

Octopus horridus: Gibbons, 1888: 201 — specimen(s) from Algoa Bay.

***Polypus valdiviæ* Chun, 1915** [= *Bathypolypus valdiviæ* (Thiele, 1915)]

? *Octopus capensis* Eydoux & Souleyet, 1852: 11 — one juvenile from Cape of Good Hope, insufficiently described. Thiele (1915: 485) and Robson (1932: 303) believed that this was probably identical with *Bathypolypus valdiviæ*.

Polypus valdiviæ Thiele, 1915: 485 — 1♂, 3♀ in 500 m from *Valdivia* Sta. 103, Agulhas Bank, 35°11'S, 23°02'E.

Bathypolypus grimpei Robson, 1924a: 208 — 1♂ in 470 fm (862 m) from *Pickle* Sta. 405, Natal coast, 30°00'S, 31°35'E; 3♂, 4♀ in 380 fm (697 m) from *Pickle* Sta. 164, Natal coast, 30°06'S, 31°31'E. Robson later decided (1932: 303) that the differences between *B. valdiviæ* and *B. grimpei* were insufficient to warrant the erection of a new species for the latter.

Bathypolypus ? *valdiviæ*: Robson, 1924d: 669 — 1♂ in 220 fm (404 m) from *Pickle* Sta. 63, Cape Town, 33°42'S, 17°36'E.

'Undetermined polypods' Robson, 1924d: 670 — one specimen in 260 fm (477 m) from *Pickle* Sta. 46, west of Cape Town, 33°25'S, 17°24'E; one specimen in 260 fm (477 m) from *Pickle* Sta. 294 (?), 25°48'S, 33°38'E. Robson (1932: 303) placed these under *B. valdiviæ*.

***Polypus capensis* (Eydoux et Souleyet, 1852)** [? = *Bathypolypus valdiviæ* (Thiele, 1915)]

Octopus capensis Eydoux & Souleyet, 1852: 11 — one juvenile from Cape of Good Hope, insufficiently described.

***Polypus fontanianus* (d'Orb.)** [Orbigny, 1835] [= *Octopus fontanianus* Orbigny, 1835]

Polypus fontanianus: Massy, 1925: 224 — 1♀ from Natal coast. Robson (1929: 187) erected the genus *Joubinia* for this species and *Polypus campbelli*. He thought (1929: 189) that Massy's specimens represented a well-marked local variety, and named them *Joubinia fontaniana* var. *africana*. Adam (1938: 223) substituted *Robsonella* for *Joubinia*, as the latter was shown to

be preoccupied. Pickford (1955: 163) re-examined Robson's specimens of *Robsonella fontaniana* and concluded that the genus *Robsonella* is probably not valid, and that the species assigned to it should be returned to the genus *Octopus*.

***Cistopus indicus* Rapp, MS [= *Cistopus indicus* (Orbigny, 1840)]**

Octopus Indicus: Martens, 1879: 727 — specimen(s) from Inhambane, Moçambique.

***Argonauta argo* Linn. [Linnaeus, 1758]**

Argonauta argo: Orbigny, 1840: 158 — Rang (1829) collected this species on the Agulhas Bank, and Reynaud in False Bay (no reference to Reynaud given). Krauss, 1848: 133 — shells in fairly large numbers on south coast of Cape Colony, from False Bay to Algoa Bay. Hoyle, 1886: 69 — one shell from Cape of Good Hope. Gibbons, 1888: 201 — specimen(s) from East London. Sowerby, 1892: 1 — this species is frequently found on the shores of South Africa. Bartsch, 1915: 2 — one specimen from Port Alfred.

***Argonauta tuberculata* Shaw, 1791 [= *Argonauta nodosa* Solander, 1786]**

Argonauta nodosa: Humphrey, 1797: 6 — specimen(s) from Cape of Good Hope (according to Smith 1903: 355).

Argonauta tuberculata: Orbigny, 1826: 138 — specimen(s) from Cape of Good Hope (according to Robson 1932: 200). Krauss, 1848: 133 — Rang found this species at Cape Agulhas (no reference to Rang given).

[?] *Argonauta böttgeri* Maltzan, 1881

Sowerby (1892: 1) lists this species for South Africa and refers to his earlier paper (1889) where, however, *A. boettgeri* is not mentioned! Bartsch (1915: 230) also lists this species for South Africa, but gives no locality.

***Amphitretus pelagicus* Hoyle, 1885**

Amphitretus pelagicus: Thiele, 1915: 532 — one specimen in vertical net to 1 800 m from *Valdivia* Sta. 102, Agulhas Current, 34°31'S, 26°00'E.

NON-SOUTHERN AFRICAN SPECIES LISTED BY MASSY (1925)

SOUTHEAST ATLANTIC

***Hensenioteuthis melancholicus* (Chun, 1906) [= *Sandalops melancholicus* Chun, 1906]**

Sandalops melancholicus: Chun, 1910: 379 — two specimens in vertical net to 1 000 m from NE of Tristan da Cunha. The position was 32°08'S, 8°28'W (Thiele 1920: 458).

***Polypus verrucosus* (Hoyle, 1885) [= *Octopus vulgaris* Cuvier, 1797]**

Octopus verrucosus Hoyle, 1885: 222 — 2♂ from Inaccessible Island, Tristan da Cunha (according to Hoyle 1886: 79).

SOUTHERN OCEAN (SOUTH OF 45°S)

***Polypus levis* (Hoyle, 1885) [= *Benthoctopus levis* (Hoyle, 1885)]**

Octopus levis Hoyle, 1885: 229 — 2♂, 2♀ in 75 fm (137 m) from *Challenger* Sta. 151, off Heard Island, 52°59'30"S, 73°33'30"W (this should be 73°33'30"E) (according to Hoyle 1886: 98).

Thiele's (1915: 486; 1920: 435) specimen from Kerguelen was considered by Robson (1932: 227, 233) to be a distinct species, *Benthoctopus thielei*.

CENTRAL INDIAN OCEAN

***Architeuthis sancti-pauli* (Vélain, 1877)**

Mouchezia sancti-pauli Vélain, 1877: 83 — one specimen from St Paul Island.

Clarke (1966: 98) has since recorded specimens of *Architeuthis* spp. from the stomachs of sperm whales caught near Durban and Saldanha Bay.

***Enoploteuthis hoylei* Pfeffer, 1884 [= *Abraliopsis hoylei* (Pfeffer, 1884)]**

Enoploteuthis hoylei Pfeffer, 1884: 17 — 1♂ from the Mascarenes.

***Loligo tricarinata* Gray, 1849 (Insufficiently characterized)**

Loligo tricarinata Gray, 1849: 73 — two shells from Isle of France (Mauritius).

***Sepioteuthis madagascarensis* Gray, 1849 (Insufficiently characterized)**

Sepioteuthis madagascariensis Gray, 1849: 80 — one specimen from Madagascar.

***Sepiola stenodactyla* Grant, 1833 [= *Euprymna stenodactyla* (Grant, 1833)]**

Sepiola stenodactyla Grant, 1833: 84 — one specimen from Mauritius.

***Polypus aranea* (d'Orb.) [Orbigny, 1826] [= *Octopus filamentosus* Blainville, 1826]**

Octopus filamentosus Blainville, 1826: 188 — specimen(s) from Mauritius (according to Robson 1929: 143).

Octopus aranea: Orbigny, 1840: 57 — specimen(s) from Mauritius.
Martens, 1879: 727 — specimen(s) from Moçambique.

NORTHWEST INDIAN OCEAN

***Abraliopsis morisii* (Vér.) [Vérany, 1837]**

Abraliopsis Morisii: Chun, 1910: 78 — 1♂ in 977 m from *Valdivia* Sta. 254, Indian North Equatorial Current, 0°29'S, 42°47'E; 1♀ in 1 134 m from

Valdivia Sta. 256, Indian North Equatorial Current, 1°49'N, 45°29'E; specimen(s) from stomach of *Coloconger raniceps* caught in 628 m from *Valdivia* Sta. 265, Indian North Equatorial Current, 6°24'N, 49°31'E.

According to Voss (personal communication) Chun's detailed illustrations involve probably three nominal species, *A. hoylei*, *A. lineata* and a new species (Voss, in manuscript).

***Calliteuthis hoylei* (Goodrich, 1896)**

Calliteuthis Hoylei: Chun, 1910: 170 — 1♀ in vertical net to 2 000 m from *Valdivia* Sta. 235, Indian South Equatorial Current near Amirante Islands, 4°34'S, 53°42'E.

N. Voss (1969: 784) considered Chun's specimen to pertain to *Histioteuthis dofleini* (Pfeffer, 1912) and not to *Histiopsis Hoylei* Goodrich, 1896, a species dubia.

***Mastigoteuthis glaucopis* Chun, 1908**

Mastigoteuthis glaucopis Chun, 1908: 88 — one specimen from proximity of East African coast. Chun, 1910: 233 — one specimen in 1 213 m from *Valdivia* Sta. 261, Indian North Equatorial Current, 4°63'S, 48°37'E (probably the same specimen).

***Liocranchia valdiviæ* Chun, 1906**

Liocranchia Valdiviæ: Chun, 1910: 337 — 1♀ in vertical net to 2 000 m from *Valdivia* Sta. 237, tongue of Indian South Equatorial Current, 4°45'S, 48°58'E; 1♂ in vertical net to 2 500 m from *Valdivia* Sta. 239, tongue of Indian South Equatorial Current, 5°42'S, 43°36'E; 1♂ in 1 362 m from *Valdivia* Sta. 258, Indian North Equatorial Current, 2°58'N, 46°50'E.

***Corynomma speculator* Chun, 1906**

Corynomma speculator: Chun, 1910: 367 — one specimen in vertical net to 2 000 m from *Valdivia* Sta. 237, tongue of Indian South Equatorial Current, 4°45'S, 48°58'E.

***Rossia mastigophora* Chun, 1915**

Rossia mastigophora Chun, 1915: 405 — 1♂, 2♀ in 638 m from *Valdivia* Sta. 253, Indian North Equatorial Current, 0°27'S, 42°47'E.

***Sepia singalensis* Goodrich, 1896 [= *Sepia pharaonis* Ehrenberg, 1831]**

Sepia singalensis: Hoyle, 1907: 459 — 2♀ from Zanzibar.

***Sepia venusta* Pfeffer, 1884 [? = *Sepia pharaonis* Ehrenberg, 1831]**

Sepia venusta Pfeffer, 1884: 12 — one specimen from Zanzibar.

***Polypus horsti* (Joubin, 1898) [= *Octopus cyanea* Gray, 1849]**

Polypus horsti: Hoyle, 1907: 451 — four specimens from Zanzibar.

***Polypus herdmani* Hoyle, 1904 [= *Octopus herdmani* (Hoyle, 1904)]**

Polypus herdmani: Hoyle, 1907: 454 — 1♀, 1? in 10 fm (18 m), 1♀ in unknown depth, from Zanzibar.

***Polypus arborescens* Hoyle, 1904 [= *Octopus arborescens* (Hoyle, 1904)]**

Polypus arborescens: Hoyle, 1907: 454 — 1♀ in 5 fm (9 m), 4♀, 1♂ in 10 fm (18 m) from Zanzibar.

***Opisthoteuthis medusoides* Chun, 1915 [= *Opisthoteuthis medusoides* Thiele, 1915]**

Opisthoteuthis medusoides Thiele, 1915: 538 — two specimens in 400 m from *Valdivia* Sta. 243, Dar-es-Salaam, 6°39'S, 39°31'E.

O. medusoides is the only species of *Opisthoteuthis* that is bell-shaped, the others being more or less flat. In this connection Bidder (1968: 1038) has made an interesting comment: 'the "species" figured by Chun (1914) under the name "*medusoides*" should probably be regarded not as a true species, but as evidence of the medusa-like swimming . . . by some chance of fixation, a group of specimens were fixed in the "systole" of the swimming phase.' The swimming of cirrate octopods is also discussed by Roper & Brundage (1972). The author of *O. medusoides* was actually Thiele, who wrote part of Chun's *Valdivia* report, as stated on page 536 of that publication, and the year of publication was 1915, not 1914.

SPECIES LISTED IN ERROR

***Grimalditeuthis bonplandi* (Vér.) [Vérany, 1837] [= *Grimalditeuthis bomplandi* (Vérany, 1837)]**

Grimalditeuthis bonplandi: Pfeffer, 1900: 188 — lists this species as recorded from the southern tip of Africa, but according to Pfeffer (1912: 635) this locality is incorrect. According to Clarke (1966: 214) this species has been recorded from the North and Southwest Atlantic.

SOUTHERN AFRICAN SPECIES OMITTED BY MASSY (1925)

Although Massy apparently did not see Robson's papers (1924*a-d*), and certainly not that of 1925, which was published three months after her checklist, Robson's records are included here for completion of the checklist to 1925.

***Moroteuthis* sp. Robson, 1924**

Moroteuthis sp.A Robson, 1924*b*: 2; 1924*d*: 595.

1♀ in 135 fm (247 m) from *Pickle* Sta. 530, 33°34'S, 17°23'E.

***Abraliopsis gilchristi* (Robson, 1924)**

Abralia gilchristi Robson, 1924*b*: 3; 1924*d*: 601.

1♂ in 240 fm (439 m) from *Pickle* Sta. 48, 33°36'S, 19°30'E;

1♀ in 280 fm (512 m) from *Pickle* Sta. 81, 33°28'S, 17°19'E.

Octopodoteuthopsis sp. Robson, 1924

Octopodoteuthopsis sp. A Robson, 1924*b*: 4.

Octopodoteuthopsis sp. Robson, 1924*d*: 606.

One specimen in 900 fm (1 646 m) from *Pickle* Sta. 357 (not Sta. 347, as stated by Robson 1924*d*), 32°36'S, 16°00'E.

Histioteuthis bonnellii (Férussac, 1835)

Histioteuthis bonnelliana: Robson, 1924*b*: 4; 1924*d*: 608.

1♀ in 470 fm (860 m) from *Pickle* Sta. 343, 30°10'S, 14°33'E;

1♂ in 958 fm* (1 752 m) from *Pickle* Sta. 542, 31°41'S, 17°09'E.

According to N. Voss (1969: 845), Robson's specimens pertain to *H. macrohista* N. Voss, 1969.

Todaropsis eblanae (Ball, 1841)

Todaropsis eblanae: Robson, 1924*b*: 5; 1924*d*: 614.

2♂, 3♀ in 112 fm (205 m) and 2♂ in 126 fm (230 m) from *Pickle* Sta. 7, 32°32'S, 17°42'E;

2♂, 7♀ in 100 fm (183 m) from *Pickle* Sta. 9, 32°37'S, 17°41'E;

1♂, 1♀ in 67 fm (123 m) from *Pickle* Sta. 20, 32°20'S, 17°55'E;

1♂ in 85 fm (155 m) from *Pickle* Sta. 44, 33°20'S, 17°49'E;

2♂, 1♀ in 67 fm (123 m) from *Pickle* Sta. 54, 33°09'S, 17°36'E;

1♂, 2♀ in 104 fm (190 m) (not 108 fm as stated by Robson 1924*b*) from *Pickle* Sta. 58, 32°26'S, 17°32'E.

Chiroteuthis sp. Robson, 1924

Chiroteuthis (*Doratopsis*-stage) A Robson, 1924*c*: 591.

One larva in plankton net at 100 fm (183 m) off Durban, 29°55'S, 31°22'E.

Mastigoteuthis sp. Robson, 1924

Mastigoteuthis sp. A Robson, 1924*b*: 5; 1924*d*: 617.

One specimen in 820 fm (1 500 m) from *Pickle* Sta. 277, 29°42'S, 31°35'E.

Taonius pellucida (Chun, 1910)

Desmoteuthis pellucida Chun, 1910: 357 — 1♀ in vertical net to 1 000 m from *Valdivia* Sta. 90, Benguela Current, 33°20'S, 15°58'E.

Pfeffer (1912: 716) repeated the description of Chun's specimen under the name *Megalocranchia pellucida*.

Liocranchia intermedia Robson, 1924

Liocranchia intermedia Robson, 1924*b*: 6; 1924*d*: 632.

1♂ in 260 fm (475 m) from *Pickle* Sta. 174, Natal coast, 29°40'S, 31°41'E.

Cranchia scabra Leach, 1817

Cranchia scabra: Robson, 1924*b*: 10; 1924*d*: 624.

1?♀ in 820 fm (1 500 m) from *Pickle* Sta. 277, Natal coast, 29°42'S, 31°35'E.

* According to the station list (Gilchrist 1922: 47) the depth at this station was 580 fm (1 061 m).

Galiteuthis armata Joubin, 1898*Galiteuthis armata*: Robson, 1924b: 8; 1924d: 627.1 ♀ in 900 fm (1 646 m) from *Pickle* Sta. 357, Cape Town, 32°36'S, 16°00'E.*Anomalocranchia impennis* Robson, 1924*Anomalocranchia impennis* Robson, 1924b: 9; 1924d: 628.One specimen in 418 fm (764 m) from *Pickle* Sta. 540, Cape Town, 33°30'S, 17°12'E.*Euprymna* sp. Hoyle, 1912*Euprymna* sp. Hoyle, 1912: 280 — one young specimen in 8–10 fm (15–18 m) from *Scotia* Sta. 482, Saldanha Bay.*Heteroteuthis hawaiiensis dagamensis* Robson, 1924*Heteroteuthis hawaiiensis* Berry, var. *dagamensis* Robson, 1924b: 11; 1924d: 632.1 ♀ in 350 fm (640 m) from *Pickle* Sta. 176, Natal coast, 29°43'S, 31°49'E;1 ♀ in 610 fm (1 116 m) from *Pickle* Sta. 251, Cape Town, 33°43'S, 17°24'E.*Rossia enigmatica* Robson, 1924*Semirossia* sp. A Robson, 1924b: 10.*Rossia enigmatica* Robson, 1924d: 635.1 ♀ in 220 fm (402 m) from *Pickle* Sta. 63, Cape Town, 33°42'S, 17°36'E;1 ♂ in 151 fm (276 m) from *Pickle* Sta. 6, Cape, 32°32'S, 17°18'E;1 ♀ in 260 fm (475 m) from *Pickle* Sta. 46, 33°25'S, 17°24'E.In the second paper (Robson 1924d) only the first two specimens above were listed for *R. enigmatica*; the third specimen is mentioned at the end of the description as being in poor condition, but probably also pertaining to this species.*Rossia* sp. Robson, 1925: 450.2 ♀ from 'Cape area'. Voss (1962: 253) re-examined these specimens and considered them to be conspecific with *R. enigmatica*.*Sepia tuberculata* Lamarck, 1798*Sepia tuberculata*: Orbigny, 1848: 277 — specimen(s) from Cape of Good Hope.*Spathiosepiion tuberculatum* Rochebrune, 1884: 93 — 1 ♀ and 1 shell from Cape of Good Hope (according to Adam 1944: 226).*Spathiosepiion papillatum* (non Quoy & Gaimard) Rochebrune, 1884: p? — 1 ♀ from Port Dorey (according to Adam 1944: 226). This locality is probably incorrect (Adam, personal communication); *S. tuberculata* is endemic to South Africa.Gray (1849: 101) lists *S. tuberculata* from the Cape of Good Hope, but apparently synonymizes *S. papillata* with it; the only specimen Gray had, one shell, pertains to *S. simoniana*, according to Adam & Rees (1966: 109).

According to Montfort (see Smith, 1916: 25) Lamarck's types were from the Cape of Good Hope.

Hoyle (1886: 217) listed this species from 'South Africa', but followed Orbigny in considering *S. papillata* to be a synonym. Massy recognized that the two species are distinct, but listed only *S. papillata*, although *S. tuberculata* had been recorded from South Africa.

Sepia hieronis (Robson, 1924)

Sepia acuminata Smith, 1916: 21 (*partim*) — one shell from Tongaat Beach, Natal.

Sepia sp. A Robson, 1924*b*: 13.

Rhomboscion hieronis Robson, 1924*d*: 645.

Two specimens in 117 fm (214 m) from *Pickle* Sta. 2, 33°03'S, 17°42'E;

2♀ in 112 fm (205 m) from *Pickle* Sta. 7, 32°32'S, 17°42'E;

1♂ in 126 fm (230 m) from *Pickle* Sta. 8, 32°33'S, 17°29'E;

one specimen in 150 fm (274 m) from *Pickle* Sta. 33, 32°54'S, 17°25'E.

Sepiella cyanea Robson, 1924

Sepiella cyanea Robson, 1924*b*: 13; 1924*d*: 648.

1♀ in 40 fm (73 m) (not 60 fm as stated by Robson 1924*d*) from *Pickle* Sta. 389, 29°27'S, 31°39'E;

1♂ in 28 fm (51 m) from *Pickle* Sta. 476, 29°17'S, 31°33'E.

Spirula spirula (Linnaeus, 1758)

Spirula peronii: Krauss, 1848: 134 — many shells found after storm on beach at Plettenberg Bay. Gibbons, 1888: 202 — specimens from Table Bay, Algoa Bay and Natal. Sowerby, 1892: 1 — occasionally found on beach, Port Elizabeth. Bartsch, 1915: 3 — one specimen from Port Alfred.

Spirula solandri: Bartsch, 1915: 251 — listed for South Africa, but no locality or reference given.

Octopus vulgaris Cuvier, 1797

Octopus vulgaris: Krauss, 1848: 132 — three specimens from Natal coast.

Polypus vulgaris: Thiele, 1920: 436 — one specimen from Simons Bay.

Octopus schultzei (Hoyle, 1910)

Polypus schultzei Hoyle, 1910: 261 — 1♂ from Angra Pequena (Lüderitzbucht).

Eledone nigra (Hoyle, 1910)

Moschites nigra Hoyle, 1910: 262 — 1♂, 6♀ from Angra Pequena (Lüderitzbucht).

Robson (1932: 279) placed this species in the genus *Pareledone*, but Voss (personal communication) has re-examined the type and other specimens in the Berlin Museum and found that the species is a typical eledonid belonging to the genus *Eledone* (of which *Moschites* is a synonym).

Benthoctopus berryi Robson, 1924*Benthoctopus berryi* Robson 1924d: 658.1♀ in 1 200 fm (2 195 m) from *Pickle* Sta. 524, SW Cape Town, 33°31'S, 16°39'E (according to the station list (Gilchrist 1922: 44) the depth at this station was 1 220 fm (2 232 m)).*Argonauta hians* Solander, 1786*Argonauta kochiana*: Bartsch, 1915: 230 — listed for South Africa, but no locality or reference given.*Eledonella pygmaea* Verrill, 1884*Eledonella massyæ* Robson, 1924a: 202; 1924d: 672.1♀ in 1 014 fm (1 854 m) from *Pickle* Sta. 87, SW Cape Town, 33°55'S, 17°06'E.*Cirroteuthis gilchristi* Robson, 1924*Cirroteuthis gilchristi* Robson, 1924a: 204; 1924d: 677.1♂ in 1 400 fm (2 560 m) from *Pickle* Sta. 526, SW Cape Town, 33°17'S, 16°24'E.*Grimpoteuthis* spp. (Robson, 1924)*Cirroteuthis* A Robson, 1924d: 680.Three specimens in 1 000 fm (1 828 m) from *Pickle* Sta. 525, Cape Town, 33°28'S, 16°40'E.Eight specimens in 1 400 fm (2 560 m) from *Pickle* Sta. 526, Cape Town, 33°17'S, 16°24'E.*Cirroteuthis* B Robson, 1924d: 682.One specimen in 790 fm (1 443 m) from *Pickle* Sta. 85, 33°46'S, 17°12'E.Robson later (1932: 155, 156) placed these specimens in the genus *Grimpoteuthis*.*Loligo burnupi* Smith [*species dubia*]

Bartsch (1915: 241) lists this species from Port Shepstone; it is not known to what species or reference this refers.

Sepia affinis Orbigny, 1826 [*species dubia*]According to Smith (1916: 26), Montfort (1805) recorded this species from the Cape of Good Hope, but Smith comments that '*Sepia affinis*, d'Orbigny, is not a *Sepia*, but evidently belongs to the genus *Sepioteuthis*, and although said by d'Orbigny and others to be the same as *Sepioteuthis sepoidea* [*sic*] (Blainville, 1823), it is not likely to be identical considering the remoteness of the localities—West Indies and South Africa'.

SEQUEL TO THE 1925 CHECKLIST

In 1926 Robson published a short additional paper on decapod cephalopods collected by the S.S. *Pickle*, including two species not covered in his previous papers on the collection, and constituting new records for southern Africa: *Tetronychoteuthis* sp. and *Histioteuthis bonnellii*.

The following year Massy (1927) described a collection of South African Cephalopoda made by the S.S. *Pieter Faure*. This collection included two new species, *Rhombosepion robsoni* (= *Sepia robsoni*) and *Sepia (Doratosepion) joubini*, and one new record, *Inioteuthis japonica* (? = *Inioteuthis capensis* Voss, 1962); the remaining species had already been recorded from southern Africa (1925 checklist and/or Robson 1924*a,b,d*).

In 1928 Massy described another collection of South African cephalopods, all but one of which had already been recorded from the region (checklist 1925). The remaining species was *Sepiella obtusata* (= *S. cyanea*, already recorded from South Africa by Robson 1924*b,d*). She also gave a list of additions to the checklist of 1925, consisting of the species described by Robson (1924*a,b,d*), but omitting *Sepiella cyanea*. She did not, however, include in this list of additions her own species and record described in 1927, nor did she mention the species described by Robson (1924*c*, 1926).

The additions to the checklist (for which the necessary synonyms have already been given) listed by Massy (1928) are as follows:

- Moroteuthis* sp. Robson, 1924
- Lycoteuthis* sp. Robson, 1924
- Abralia gilchristi* Robson, 1924
- Octopodoteuthopsis* sp. Robson, 1924
- Histioteuthis bonelliana* (Férussac, 1835)
- Todaropsis eblanae* Ball, 1841
- Mastigoteuthis* sp. Robson, 1924
- Liocranchia reinhardtii* Steenstrup, 1856, var. Robson, 1924
- Liocranchia intermedia* Robson, 1924
- Cranchia scabra* Leach, 1817
- Pyrgopsis pacifica* (Issel, 1908)
- Galiteuthis armata* Joubin, 1898
- Anomalocranchia impennis* Robson, 1924
- Loligo* spp. Robson, 1924
- Heteroteuthis hawaiiensis* (Berry, 1909), var. *dagamensis* Robson, 1924
- Rossia enigmatica* Robson, 1924
- Rhombosepion hieronis* Robson, 1924
- Velodona togata* Chun, 1915, var. *capensis* Robson, 1924
- Benthoctopus berryi* Robson, 1924
- Bathypolypus grimpei* Robson, 1924
- Cirroteuthis gilchristi* Robson, 1924
- Cirroteuthis* sp. Robson, 1924
- Eledonella massyae* Robson, 1924

The species omitted by Massy (1928) but recorded from southern Africa up to 1928 are:

- Cheiroteuthis* sp. Robson, 1926 (= *Chiroteuthis* sp.)
- Histioteuthis bonelliana* (Férussac, 1835) (ex Robson 1926) (= *H. bonnellii*)

Tetronychoteuthis sp. Robson, 1926
Iniotheuthis japonica Verrill, 1881 (ex Massy 1927) (? = *I. capensis* Voss, 1962)
Sepia (Doratosepion) joubini Massy, 1927
Rhombosepion robsoni Massy, 1927 (= *Sepia robsoni* (Massy, 1927))
Sepiella cyanea Robson, 1924

SUMMARY

Since Massy's checklist of South African Cephalopoda covers a very much larger area than that now considered to be the southern African zoogeographical region, the species listed by Massy have been separated into South African and non-South African. The locality records upon which Massy's checklist was probably based are given. For completion the species recorded from the southern African region up to 1925 but not listed by Massy (1925) are also given. Finally, the works of Massy and Robson on South African cephalopods, published up to 1928 and culminating in Massy's list of additions to the 1925 checklist, are briefly discussed.

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REFERENCES

Asterisked references (*) were not seen in the original.

- ADAM, W. 1938. *Robsonella* nom. nov. für *Joubinia* Robson, 1929 (Cephalopoda, Octopoda). *Zool. Anz.* **121**: 223-224.
- ADAM, W. 1939. Cephalopoda. I. Le genre *Sepioteuthis* Blainville, 1824. *Siboga Exped. Monogr.* **55a**: 1-34.
- ADAM, W. 1941. Résultats scientifiques des croisières du navire-école belge 'Mercator'. III (4). Cephalopoda. *Mém. Mus. r. Hist. nat. Belg.* (2) **21**: 83-161.
- ADAM, W. 1944. Révision de l' 'Étude monographique de la famille des Sepiidae' d'A. T. de Rochebrune (1884). *Mém. Mus. natn. Hist. nat., Paris* (n.s.) **18**: 219-242.
- ADAM, W. & REES, W. J. 1966. A review of the cephalopod family Sepiidae. *Scient. Rep. John Murray Exped.* **11**: 1-165.
- BARNARD, K. H. 1974. Contributions to the knowledge of South African marine Mollusca. Part VII. Revised fauna list. *Ann. S. Afr. Mus.* **47**: 663-781.
- BARTSCH, P. 1915. Report on the Turton collection of South African marine mollusks, with additional notes on other South African shells contained in the United States National Museum. *Bull. U. S. natn. Mus.* **91**: 1-305.
- BIDDER, A. M. 1968. Some problems of cephalopod locomotion. *Symp. Ser. mar. biol. Ass. India* **3**: 1029-1052.
- *BLAINVILLE, H. M. D. DE. 1826. In: CUVIER, F., ed. *Dictionnaire des sciences naturelles*. Paris: Levrault.
- CARLETON, H. M. & ROBSON, G. C. 1924. On the histology and function of certain secondary sexual organs in the cuttlefish *Doratosepion confusa*. *Proc. R. Soc. (B)* **96**: 259-271.
- CHUN, C. 1908. Über Cephalopoden der Deutschen Tiefsee-Expedition. *Zool. Anz.* **33**: 86-89.
- CHUN, C. 1910. Die Cephalopoden. I. Teil: Oegopsida. *Wiss. Ergebn. dt. Tiefsee-Exped. 'Valdivia'* **18**: 1-401.
- CHUN, C. 1915. Die Cephalopoden. II. Teil. Myopsida, Octopoda. *Wiss. Ergebn. dt. Tiefsee-Exped. 'Valdivia'* **18**: 405-552.

- CLARKE, M. R. 1966. A review of the systematics and ecology of oceanic squids. *Adv. mar. Biol.* 4: 91-300.
- DAY, J. H. 1967. *A monograph on the Polychaeta of southern Africa*. Part 1. Errantia. London: British Museum (Natural History).
- EYDOUX, J. F. & SOULEYET, F. L. 1852. *Voyage autour du monde exécuté pendant les années 1836 et 1837, sur la corvette la Bonite, commandée par M. Vaillant*. *Zoologie*. 2: 7-36. Paris.
- GIBBONS, J. S. 1888. Partial list of the South African Mollusca. *Trans. S. Afr. phil. Soc.* 4: 201-219.
- GILCHRIST, J. D. F. 1922. Fisheries and marine biological survey. Report No. 2. For the year 1921. *Rep. Fish. Mar. Biol. Surv. Un. S. Afr.* 2: 1-84.
- GRANT, R. E. 1886. Report on the anatomy of the *Sepiolo vulgaris*, Leach, and account of a new species (*Sep. stenodactyla*, Grant,) from the coast of Mauritius. *Trans. zool. Soc. Lond.* 1: 77-86.
- *GRAY, J. E. 1828. *Spicilegia zoologica*. I. London: Treuttet & Würtz.
- GRAY, J. E. 1849. *Catalogue of the Mollusca in the collection of the British Museum*. I. Cephalopoda Antepedia. London: British Museum (Natural History).
- *HOYLE, W. E. 1885. Diagnoses of new species of Cephalopoda collected during the cruise of H.M.S. 'Challenger'. Part I. The Octopoda. *Ann. Mag. nat. Hist.* (5) 15: 222-236.
- HOYLE, W. E. 1886. Report on the Cephalopoda collected by H.M.S. Challenger during the years 1873-1876. *Rep. Voy. Challenger 1873-76* 16: 1-245.
- HOYLE, W. E. 1904. *Sepia burnupi* n. sp. from Natal. *J. Conch., Lond.* 11: 27-28.
- HOYLE, W. E. 1905. The marine fauna of the west coast of Ireland. II. On specimens of *Tracheloteuthis* and *Cirroteuthis* from deep water off the west coast of Ireland. *Rep. Sea Inland Fish. Ireland 1902/03* (2): 93-98.
- HOYLE, W. E. 1907. The marine fauna of Zanzibar and East Africa, from collections made by Cyril Crossland in 1901-1902. — The Cephalopoda. *Proc. zool. Soc. Lond.* 1907 (2): 450-461.
- HOYLE, W. E. 1910. Mollusca: Cephalopoda. In: SCHULTZE, L. *Zoologische und anthropologische Ergebnisse einer Forschungsreise im westlichen und zentralen Südafrika* 4: 261-268. Jena: Fischer. *Denkschr. med-naturw. Ges. Jena* 16: 261-268.
- HOYLE, W. E. 1912. The Cephalopoda of the Scottish National Antarctic Expedition. *Trans. R. Soc. Edinb.* 48: 273-283.
- *HUMPHREY, G. 1797. *Museum Calonianum*. Part 1. London.
- JOUBIN, L. 1898. Sur quelques céphalopodes du Musée Royal de Leyde et description de trois espèces nouvelles. *Notes Leyden Mus.* 20: 21-28.
- KRAUSS, F. 1848. *Die südafrikanischen Mollusken*. Stuttgart: Ebner & Seubert.
- LESUEUR, C. A. 1821. Descriptions of several new species of cuttle-fish. *J. Acad. nat. sci. Philad.* 2: 86-101.
- MARTENS, E. v. 1879. Übersicht der von ihm [Hr. W. Peters] von 1843 bis 1847 in Mossambique gesammelten Mollusca. *Mber. K. preuss. Akad. Wiss. Berlin* 1879: 727-749.
- MASSY, A. L. 1925. On the Cephalopoda of the Natal Museum. *Ann. Natal Mus.* 5: 201-229.
- MASSY, A. L. 1927. The Cephalopoda of the South African Museum. *Ann. S. Afr. Mus.* 25: 151-167.
- MASSY, A. L. 1928. On the Cephalopoda of the Natal Museum. Part II. *Ann. Natal Mus.* 6: 89-96.
- MASSY, A. L. & ROBSON, G. C. 1923. On a remarkable case of sex-dimorphism in the genus *Sepia*. *Ann. Mag. nat. Hist.* (9) 12: 435-442.
- *MONTFORT, P. D. DE. 1805. Histoire naturelle des mollusques. In: BUFFON, G. L. L. DE. *Histoire naturelle*. Nouv. éd. (suite). Paris.
- ODHNER, N. HJ. 1923. Contributions to the marine molluscan faunas of South and West Africa. *Göteborgs K. Vetensk.-o. VitterhSamh. Handl.* (4) 26 (7): 1-40.
- *ORBIGNY, A. D. D'. 1826. Tableau méthodique de la classe des céphalopodes. *Annls Sci. nat.* 7: 96-169.
- ORBIGNY, A. D. D'. 1840, 1841, 1848. In: FÉRUSSAC, A. DE. & ORBIGNY, A. D'. 1835-48. *Histoire naturelle générale et particulière des céphalopodes acétabulifères vivants et fossiles*. Paris: Bertrand.
- PFEFFER, G. 1884. Die Cephalopoden des Hamburger Naturhistorischen Museums. *Abh. Geb. Naturw. Hamburg* 8: 63-90.
- PFEFFER, G. 1900. Synopsis der oegopsiden Cephalopoden. *Mitt. naturh. Mus. Hamb.* 17: 145-198.

- PFEFFER, G. 1912. Die Cephalopoden der Plankton-Expedition. *Ergebn. Atlant. Ozean Plankton-exped. Humboldt-Stift.* 2: 1-815.
- PICKFORD, G. E. 1955. A revision of the Octopodinae in the collections of the British Museum. *Bull. Br. Mus. nat. Hist. (Zool.)* 3: 151-167.
- QUOY, J. R. & GAIMARD, J. P. 1832. Mollusques. In: *Zoologie du voyage de l'Astrolabe, pendant les années 1826-1829.* 2. Paris: Tastu.
- *RANG, S. 1829. Sur l'animal de l'Argonaute. *Férussac, Bull. Sci. Nat.* 17: 132-134.
- *RAPP. [Unpublished manuscript, referred to in Orbigny 1840.]
- ROBSON, G. C. 1924a. On new species &c. of Octopoda from South Africa. *Ann. Mag. nat. Hist. (9)* 13: 202-210.
- ROBSON, G. C. 1924b. Preliminary report on the Cephalopoda (Decapoda) procured by the S.S. 'Pickle'. *Rep. Fish. mar. biol. Surv. Un. S. Afr.* 3 (Spec. Rep. 9): 1-14.
- ROBSON, G. C. 1924c. On a new *Doratopsis*-stage of *Cheiroteuthis* from S. E. Africa. *Ann. Mag. nat. Hist. (9)* 13: 591-594.
- ROBSON, G. C. 1924d. On the Cephalopoda obtained in South African waters by Dr. J. D. F. Gilchrist in 1920-21. *Proc. zool. Soc. Lond.* 1924: 589-686.
- ROBSON, G. C. 1925. On a new species of *Rossia* from South Africa. *Ann. Mag. nat. Hist. (9)* 15: 450-454.
- ROBSON, G. C. 1926. The Cephalopoda obtained by the S.S. 'Pickle'. Supplementary report. *Rep. Fish. mar. biol. Surv. Un. S. Afr.* 4 (Spec. Rep. 8): 1-6.
- ROBSON, G. C. 1929. *A monograph of the recent Cephalopoda.* Part I. Octopodinae. London: British Museum (Natural History).
- ROBSON, G. C. 1932. *A monograph of the recent Cephalopoda.* Part II. The Octopoda (excluding the Octopodinae). London: British Museum (Natural History).
- *ROCHEBRUNE, A. T. DE. 1884a. Étude monographique de la famille des Loliopsidae. *Bull. Soc. philomath. Paris (7)* 8: 7-28.
- *ROCHEBRUNE, A. T. DE. 1884b. Étude monographique de la famille des Sepiidae. *Bull. Soc. philomath. Paris (7)* 8: 74-122.
- ROPER, C. F. E. & BRUNDAGE, W. L. 1972. Cirrate octopods with associated deep-sea organisms: new biological data based on deep benthic photographs (Cephalopoda). *Smithson. Contr. Zool.* 121: 1-46.
- SMITH, E. A. 1903. A list of species of Mollusca from South Africa, forming an appendix to G. B. Sowerby's 'Marine shells of South Africa'. *Proc. malac. Soc. Lond.* 5: 354-402.
- SMITH, E. A. 1916. On the shells of the South African species of Sepiidae. *Proc. malac. Soc. Lond.* 12: 20-26.
- SOWERBY, G. B. 1889. Further notes on marine shells of South Africa, with descriptions of new species. *J. Conch., Lond.* 6: 147-159.
- SOWERBY, G. B. 1892. *Marine shells of South Africa.* London: The Author.
- STEENSTRUP, J. 1875. *Hemisepius*, en ny slægt af *Sepia*-blæksprutternes familie med bemærkninger om *Sepia*-formerne i almindelighed. *K. danske Vidensk. Selsk. Skr. (5)* 10: 465-482.
- STEENSTRUP, J. 1882. Notae teuthologicae. 1. *Overs. danske Vidensk. Selsk. Forh.* 1882: 143-168. (English translation: VOLSKØE, A. et al. *The cephalopod papers of Japetus Steenstrup.* Copenhagen: Danish Science Press, 1962.)
- THIELE, J. 1915. In: CHUN, C. Die Cephalopoden. II. Teil: Myopsida, Octopoda. *Wiss. Ergebn. dt. Tiefsee-Exped. 'Valdivia'* 18: 472-475, 485-487, 490-494, 531-533, 534-538.
- THIELE, J. 1920. Die Cephalopoden der deutschen Südpolar-Expedition 1901-1905. *Dt. Südpol.-Exped.* 16: 433-465.
- TOMLIN, J. R. LE B. 1923. On South African marine Mollusca with descriptions of several new species. *J. Conch., Lond.* 17: 40-52.
- *TRYON, G. W. 1879. Cephalopoda. *Man. Conch.* 1: 1-316.
- VÉLAIN, C. 1877. Remarques générales au sujet de la faune des îles St. Paul et Amsterdam, suivies d'une description de la faune malacologique des deux îles. *Archs Zool. exp. gén.* 6: 1-144.
- VOSS, G. L. 1962. South African cephalopods. *Trans. R. Soc. S. Afr.* 36: 245-272.
- VOSS, G. L. 1967. Some bathypelagic cephalopods from South African waters. *Ann. S. Afr. Mus.* 50: 61-88.
- VOSS, N. A. 1969. A monograph of the Cephalopoda of the North Atlantic. The family Histio-teuthidae. *Bull. mar. Sci.* 19: 713-867.
- YOUNG, R. E. 1972. The systematics and areal distribution of pelagic cephalopods from the seas off southern California. *Smithson. Contr. Zool.* 97: 1-159.